Heterotrophic Plate Count (for Drinking Water)
SM 18th, 19th, and 20th Ed. 9215B- Pour Plate Method **Page 1 of 2**

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
Are analyses conducted on a level table or bench top with ample area in a clean, draft-free, well-lighted room or within a horizontal-flow laminar hood?	9215A.3				
Is the table or bench top disinfected before analysis is begun?	9215A.3				
For drinking water, is analysis begun within 8 hours of sample collection?	40 CFR 141.74(a)(1)				
For drinking water, are samples preserved at <10ºC during transit?	40 CFR 141.74(a)(1)				
Is each volume of sample or dilution analyzed in at least duplicate plates?	9215A.5, 9215B.2.c				
Are samples or dilutions mixed by rapidly making about 25 complete up-and-down (or back-and-forth) movements? (Or use a mechanical shaker 15 seconds.)	9215A.5				
Is tryptone glucose yeast agar or equivalent used for pour plate method?	9215A.6.a				
If tryptone glucose yeast agar is prepared in-house, is pH 7.0 ± 0.2 after autoclaving at 121ºC for 15 minutes?	9215A.6.a				
Is sterile solid agar medium melted in boiling water or by exposure to flowing steam in a partially closed container, but avoiding prolonged exposure to unnecessarily high temperatures?	9215B.3.a				
Is melted medium maintained in a water bath between 44 and 46ºC until used, preferably no longer than 3 hours? (Use a thermometer inserted in a separate container of medium.) *NOTE: 3 hour "preference" does not apply to SM 18th Edition.*	9215B.3.a, 9215B.3.b				
Are sample volumes selected that will yield from 30 to 300 colonies per plate? (Do not pipet more than 2 mL sample unless total number of colonies will be less than 30.)	9215A.8.a, 9215B.2.a				
Most potable water samples require 1mL and 0.1 mL volumes of undiluted sample, and 1mL volume of 100X diluted sample.					
Notes/Comments:					

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Are sterile pipets used for initial and subsequent transfers from each container? (Use separate pipets for each dilution.)	9215B.2.b				
When discharging sample from pipet, is the pipet held at an angle of about 45º with tip touching bottom of petri dish or inside neck of dilution bottle?	9215B.2.c				
If pouring melted medium from flasks or tubes that have been held in a water bath, is the neck flamed before pouring? *NOTE: Requirement not in SM18th Edition.*	9215B.3.b				
Are at least 10-12 mL of melted culture medium added after pipetting sample into petri dish, and the plate mixed carefully?	9215B.2.c, 9215B.3.b				
Are dilutions of samples and all plate pouring completed within 20 minutes for each series of samples?	9215B.2.c, 9215B.3.b				
After pouring, are plates allowed to solidify on a level surface (within 10 min.)?	9215B.3.b				
For drinking water, are plates inverted and incubated at 35ºC for 48 hours?	9215A.7, 9215B.4				
Is humidity maintained in the incubator during incubation?	9215A.7				
Are colonies counted, using a counting aid such as a Quebec colony counter, promptly after incubation? (If delayed, plates may be stored at 5-10ºC for no more than 24 hours.)	9215A.8.a				
Are individual colonies counted if they are similar-appearing and growing in close proximity but not touching, and the distance between them is at least equal to the diameter of the smallest colony?	9215A.8.a				
Are results not reported as “too numerous to count” when the number of colonies far exceeds 300? (Refer to method for specific instructions regarding how to count.)	9215A.8.a				
Are results calculated using the following formula, and are they reported to two significant figures? CFU/mL = $\frac{\text{colonies counted}}{\text{Actual volume of sample in dish, mL}}$	9215A.8.a, 9215A.9				
Notes/Comments:					